

**AMENDED CLAIMS**

- 1 1. (currently amended) A method of determining a resistivity parameter of interest  
2 of an anisotropic earth formation, the method comprising:  
3 (a) obtaining a plurality of unfocused differential array resistivity  
4 measurements (a lateral log) over a depth interval;  
5 (b) obtaining a plurality of ~~induction~~ additional resistivity measurements ~~with~~  
6 ~~an induction logging tool~~ over said depth interval;  
7 (c) processing said plurality of unfocused differential array resistivity  
8 measurements and said plurality of ~~induction~~ additional resistivity  
9 measurements and obtaining therefrom said parameter of interest, said  
10 processing excluding an inversion of said ~~induction~~ additional resistivity  
11 measurements.
- 1 2. (currently amended) The method of claim 1 wherein said parameter of interest  
2 comprises at least one of (i) a mean resistivity of said earth formation, (ii) a  
3 vertical resistivity of said earth formation, and (iii) a horizontal resistivity of said  
4 earth formation.
- 1 3. **canceled**  
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- 1 4. **canceled**  
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- 1 5. (currently amended) The method of claim 1 wherein said plurality of ~~induction~~  
2 additional measurements comprises focused measurements.

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- 1 6. (original) The method of claim 1 wherein said processing further comprises  
2 applying a borehole correction and an invasion correction to said lateral log.  
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- 1 7. (currently amended) The method of claim 1 wherein said processing further  
2 comprises applying a borehole correction and an invasion correction to said  
3 ~~induction~~ additional resistivity measurements and obtaining a horizontal  
4 resistivity.  
5
- 1 8. (currently amended) The method of claim 7 further comprising determining an  
2 anisotropy factor from a mean resistivity and a said horizontal resistivity.  
3
- 1 9. (original) The method of claim 1 further comprising making measurements with a  
2 micro-laterolog and using said micro-laterolog measurements in said processing.  
3
- 1 10. (currently amended) An apparatus for use in a borehole in an anisotropic earth  
2 formation for determining a resistivity parameter of said earth formation, the  
3 apparatus comprising:  
4 (a) an unfocused differential array resistivity measuring device ~~for obtaining~~  
5 which obtains a plurality of unfocused differential resistivity  
6 measurements (a lateral log) over a depth interval;  
7 (b) ~~an induction~~ a resistivity measuring device ~~for obtaining~~ which obtains a  
8 plurality of ~~induction~~ additional resistivity measurements over said depth  
9 interval;

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10 (c) a processor ~~for processing which processes~~ said plurality of unfocused  
11 differential array resistivity measurements and said plurality of ~~induction~~  
12 additional resistivity measurements and obtaining therefrom obtaining said  
13 parameter of interest, said processing excluding an inversion of said  
14 ~~induction log~~ additional resistivity measurements.

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1 11. (currently amended) The apparatus of claim 10 wherein said parameter of interest  
2 is selected from the group consisting of (i) comprises a vertical resistivity of said  
3 earth formation, and (ii) a horizontal resistivity of said earth formation.

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1 12. **canceled**

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1 13. (currently amended) The apparatus of claim 10 wherein said plurality of ~~induction~~  
2 additional measurements comprises focused measurements.

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1 14. (original) The apparatus of claim 10 wherein said processor further applies a  
2 borehole correction and an invasion correction to said lateral log.

3

1 15. (currently amended) The apparatus of claim 14 wherein said processor further  
2 ~~comprises~~ applies a borehole correction and an invasion correction to said  
3 ~~induction log~~ additional resistivity measurements and obtains a horizontal  
4 resistivity.

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1 16. (original) The apparatus of claim 15 wherein said processor further determines an  
2 anisotropy factor from a mean resistivity and said horizontal resistivity.  
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1 17. (original) The apparatus of claim 10 further comprising making measurements  
2 with a micro-laterolog and using said micro-laterolog measurements in said  
3 processing.  
4

1 18. (original) The apparatus of claim 10 wherein said processor performs said  
2 processing substantially in real time.  
3

1 19. (original) The apparatus of claim 10 wherein said processor is at a surface  
2 location.  
3

1 20 (original) The apparatus of claim 10 wherein said processor is at a downhole  
2 location.  
3

1 21. (currently amended) The apparatus of claim ~~10~~ 31 wherein said induction  
2 resistivity device is an array device.  
3

1 22. (currently amended) The apparatus of claim ~~10~~ 31 wherein said induction  
2 resistivity device comprises a plurality of coils with an axis substantially parallel  
3 to an axis of said resistivity device.  
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1 23. (currently amended) A system for use in a borehole in an anisotropic earth  
2 formation for determining a resistivity parameter of said earth formation, the  
3 system comprising:  
4 (a) an unfocused differential array resistivity measuring device ~~for obtaining~~  
5 which obtains a plurality of unfocused differential resistivity  
6 measurements (a lateral log) over a depth interval;  
7 (b) ~~an induction~~ a resistivity measuring device ~~for obtaining~~ which obtains a  
8 plurality of ~~induction~~ additional resistivity measurements over said depth  
9 interval;  
10 (c) a processor ~~for processing~~ which processes said plurality of unfocused  
11 differential array resistivity measurements and said plurality of ~~induction~~  
12 additional resistivity measurements and ~~obtaining estimates~~ therefrom  
13 obtaining said parameter of interest, said processing excluding an  
14 inversion of said ~~induction~~ additional resistivity measurements; and  
15 (d) a conveyance device ~~for conveying~~ which conveys said unfocused  
16 differential array resistivity measuring device and said ~~induction~~ resistivity  
17 measuring device into said borehole.

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1 24. (currently amended) The system of claim 23 wherein said conveyance device  
2 is selected from the group consisting of (i) comprises a wireline, and (ii) a drilling  
3 tubular.

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1 25. canceled  
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1 26. canceled

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1 27. (original) The system of claim 23 wherein said processor is at a surface location.

2

1 28. (original) The system of claim 23 wherein said processor is at a downhole  
2 location.

3

1 29. (currently amended) The system of claim ~~23~~ 32 wherein said induction device  
2 comprises coils with axes substantially parallel to an axis of the borehole.

3

1 30. (new) The method of claim 1 wherein the plurality of additional resistivity  
2 measurements comprises induction measurements.

3

1 31. (new) The apparatus of claim 1 wherein said resistivity measuring device  
2 comprises an induction device.

3

1 32. (new) The system of claim 23 wherein said resistivity measuring device  
2 comprises an induction device.

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